NASA TT F-11, 527

OBSERVATIONS OF NOCTILUCENT CLOUDS IN GOR'KIY IN 1964

Ye. G. Demidovich and A. P. Poroshin

Translation of "Nablyudeniya za serebristymi oblakami v gorode Gor'kom v 1964 godu". In: Meteorologicheskiye Issledovaniya; Serebristyye oblaka (Meteorological Research; Noctilucent Clouds), No. 12, pp. 113-114, Nauka Press, Moscow, 1966.

GPO PRICE $ _____

CFSTI PRICE(S) $ _____

Hard copy (HC) 3.00

Microfiche (MF) .65

ff 653 July 65

N68-28560
(ACCESSION NUMBER) (THRU)

3 1
(PAGES) (CODE)

(NASA CR OR TMX OR AD NUMBER) 13
(CATEGORY)

FACILITY FORM 602

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546 MAY, 1968

OBSERVATIONS OF NOCTILUCENT CLOUDS IN GOR'KIY IN 1964

Ye. G. Demidovich and A. P. Poroshin

ABSTRACT: Results are presented of the noctilucent cloud patrol observations, made by the Gor'kiy Department of the All-Union Astronomical and Geodetic Society in 1964.

During the period from May 10 to August 7 in the Gor'kiy Department /113* of the All-Union Astronomical and Geodetic Society, patrol observations were conducted for the detection of noctilucent clouds, the purpose of which was to establish all cases of the appearance of noctilucent clouds, to describe the morphological forms, the brightness, the bounds of their extent in terms of altitude and azimuth angles.

The observations were conducted from an astronomical platform on the building of the Gor'kiy State Pedagogical Institute with the use of binoculars and TZK binocular telescopes. Individual appearances of the noctilucent clouds were photographed with a small camera.

In the Summer of 1964, periods of continuous cloudiness were insignificant. Continuous cloudiness occurred on August 4 and remained up to the middle of the month. From that time on, the observations were discontinued. From May 10 to August 4, the periods of cloudiness making observations impossible, comprised 18% of the total observation time. In May there were six nights of continuous cloudiness, ten in June and none in July.

Date	Time	Brightness Numbers	Morphol. type(according to N.I. Grishin	Boundary Coordinates	
				at alt. from-to	at azimuth, from-to
June					
7/8	2200-0200	3-5	II,III	05-15°	340-050°
19/20	2300-0100	2	II	05-10	005-040
20/21	2200-0100	2-3	II,III	03-40	000-060
22/23	2300-0100	3-4	II,IV	02-20	320-060
25/26	2230-0100	2-5	II,III	02-30	340-060
29/30	2300-0100	2-3	II	02-20	300-030
July					
3/4	2300-0200	3-5	II,III	04-45	300-050
9/10	2200-0100	3-5	I,II	03-20	260-010
10/11	2200-0100	2-4	II	02-20	330-030
24/25	2300-0100	2-4	I,II	03-15	290-000

Notes: Azimuths shown are geodesic. Time is Moscow time.

* Numbers in margin indicate pagination in foreign text.

During the entire observation time, 10 definite instances of the appearance of noctilucent clouds were noted; this amounts to 15% of the total number of clear nights. The results of the observations are given in the table. Attention should be paid to the rather marked concentration of noctilucent clouds during the last 10 days of June and the first 10 days of July. During this time, 8 appearances occurred out of the 10 noted for the entire period of observation (i.e. 80%). /114

Also of interest are the cases when the noctilucent clouds were observed two nights in a row, for example, from 19 to 20 June and from 20 to 21 June and, with a break of one night, from 22 to 23 June, and also from 9 to 10 July and from 10 to 11 July.

Translated for the National Aeronautics and Space Administration by the Translation Division, Institute of Modern Languages, Inc. under contract NASw-1693.